

## Electric heat sizing

1 BTU = 0.00029307107 KW

Over sizing the emergency heat heating element on a heat pump creates higher operating costs for the customer as well as poor performance of the fan coil. The speed selected for heat pump heating mode is determined (on single stage units) by the heating element size. Large heating elements require higher blower speeds to keep the high limits from turning the element off, then when the heat pump is operating the blower is running too fast lowering it's output and efficiency It's important to realize this is NOT a fossil fuel furnace, the size of the required heating element is determined by the size of the heat pump.

For electrical connections refer to the fan coil/air handler installation instructions bear in mind all units with electric heat require 2 source circuits and for large KW elements you may require 3 source circuits. In certain instances you may connect to a single source If the source breaker and wire size are adequate for combining circuits, you have proper over current protection built into the element panel, and proper multi to single connections are made (usually requires a special order conversion/jumper kit).

Ton	BTU	KW	Element Size
1	12,000 BTU	3.52 KW	4 KW
1-1/2	18,000 BTU	5.28 KW	5 KW
2	24,000 BTU	7.03 KW	7 KW
2-1/2	30,000 BTU	8.79 KW	9 KW
3	36,000 BTU	10.55 KW	10 KW
3-1/2	42,000 BTU	12.31 KW	12 KW
4	48,000 BTU	14.07 KW	15 KW
5	60, 000 BTU	17.58 KW	20 KW or 24KW**

\*\* sometimes the big boy needs to go in on certain jobs...

## Electric Heat CFM

AUX Heat Range					
KW	0-24	0-20	0-15	0-10	0-5
CFM	1680	1400	1050	700	350

Recommended **70CFM per kW** minimum for proper  $\Delta T$  (rise).